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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
19702A GSRS, MISSILE NUMBER 303, ROUND NUMBER B-28, 6 AUGUST 19--ETC(U)
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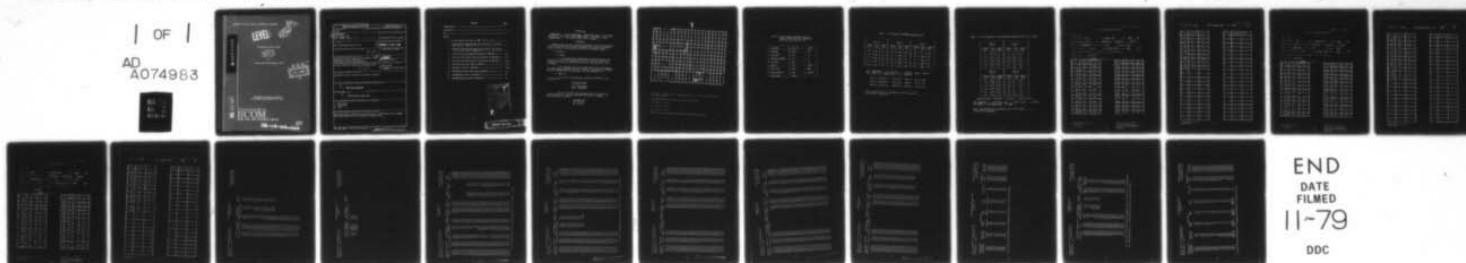
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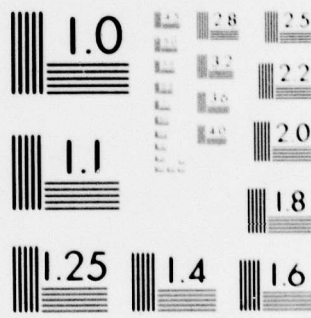
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MICROCOPY RESOLUTION TEST CHART
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AUGUST 1979

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METEOROLOGICAL DATA REPORT

19702A GSRS
Missile No. 303
Round No. B-28
6 August 1979

by

White Sands Meteorological Team

DDC
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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) 1. Ballistics 2. Meteorology 3. Wind		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 19702A GSRS, Missile Number 303, Round Number B-28, are presented in tabular form.		

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INTRODUCTION

19702A GSRS, Missile Number 303, Round Number B-28, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0945 MDT, 6 August 1979. The scheduled launch time was 0945 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pilot observation at:

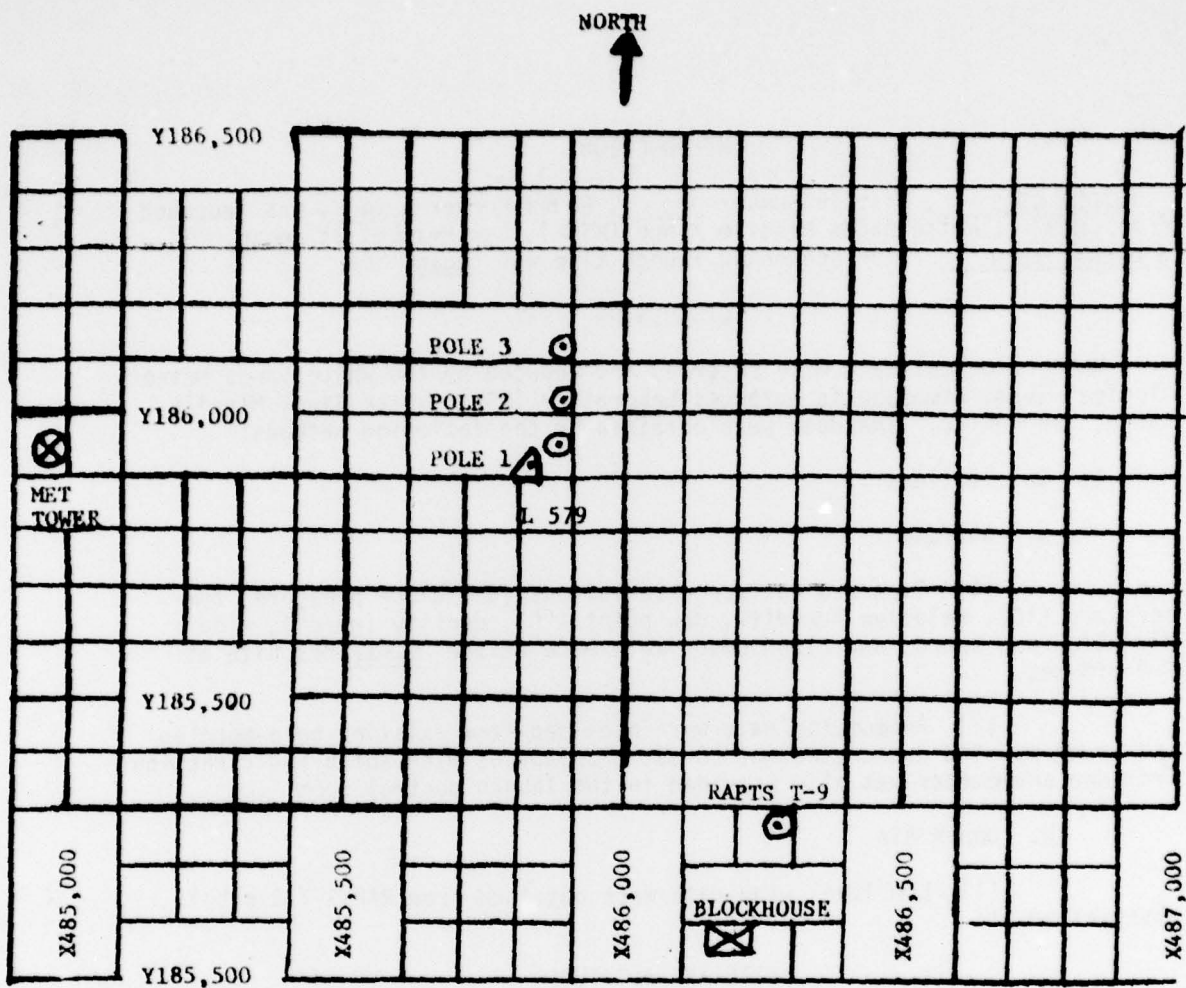
SITE AND ALTITUDE

LC-33 1020 Meters
NICK 1080 Meters

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 98,000 feet in 500-foot increments.

SITE AND TIME

SMR 0830 MST



1. MET TOWER - 4 Bendix Model T-20 Anemometers at 12 ft, 62 ft, 102 ft, and 202 ft with E/A recorders.
2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.
 - (a) Pole #1 - 38.7 ft
 - (b) Pole #2 - 53.0 ft
 - (c) Pole #3 - 83.6 ft
3. RAPTS T-9 Radar Automatic Pilot-Balloon Tracking System T-9 Radar.

TABLE 1. Surface observations taken at LC-33
6 August 1979 at 0945 MDT, 19702A GSRS,
Missile No. 303, Round No. B-28.

ELEVATION	3977.30	FT/MSL
PRESSURE	885.7	MBS
TEMPERATURE	25.2	°C
RELATIVE HUMIDITY	40	%
DEW POINT	10.6	°C
DENSITY	1027	GM/M ³
WIND SPEED	CALM	MPH
WIND DIRECTION	CALM	DEGREES
CLOUD COVER	CLEAR	

TABLE 2. LC-33 FIXED POLE ANEMOMETER-MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	146	01	-30	165	01	-30	M	02
-20	146	01	-20	150	01	-20	123	03
-10	168	01	-10	158	01	-10	120	01
0.0	128	01	0.0	160	01	0.0	120	01
+10	132	01	+10	132	00	+10	120	00

Type 19702 GSRS, Missile No. 303, Round No. B-28 launched
from LC-33 on 6 August 1979 at 0945 MDT.

POLE #1 = X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL

POLE #2 = X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL

POLE #3 = X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL

NOTE: Wind directions are referenced to the firing azimuth _____
or true north true north.

TABLE 3. LC-33 METEOROLOGICAL TOWER ANEMOMETER-MEASURED WINDS (202 FT. TOWER)

LEVEL #1 12 ft.			LEVEL #2 62 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	074	01	-30	070	02
-20	073	01	-20	070	02
-10	074	00	-10	070	02
0.0	074	00	0.0	072	02
+10	118	01	+10	107	02
LEVEL #3 102 ft.			LEVEL #4 202 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	080	04	-30	M	03
-20	079	04	-20	M	04
-10	079	04	-10	M	03
0.0	079	04	0.0	M	03
+10	128	05	+10	146	03

WTSM Coordinates: X484,982.64 Y185,957.73 H3983.00 (base)

Type 19702 GSRS, Missile No. 303, Round No. B-28 launched
from LC-33 on 6 August 1979 at 0945.

NOTE: Wind directions are referenced to the firing azimuth _____
or true north true north.

PILOT BALLOON MEASURED WIND DATA*

TABLE 4

RELEASED FROM LC-33 DATE 6 August 1979 TIME 0950 MDT
 RELEASE POINT COORDINATES (WSTM) X=486,037.24 Y=182,350.16 H= 3977.30
 MISSILE TYPE 19702A GSRS MISSILE NO. 303 ROUND NO. B-28
 MISSILE LAUNCHED FROM LC-33 DATE 6 August 1979 TIME 0945 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIPING AZIMUTH

OR TRUE NORTH true north

Heights are METERS AGL METERS or FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED MPH
SFC	CALM	CALM
30	105	00.6
60	105	01.1
90	105	01.7
120	105	02.3
150	105	02.8
180	105	03.4
210	109	03.5
240	115	03.6
270	121	03.7
300	126	03.8
330	131	04.0
360	129	03.7

HEIGHT AGL	DIRECTION DEGREES	SPEED MPH
390	140	04.3
420	149	04.9
450	156	05.7
480	161	06.5
510	159	05.7
540	163	07.3
570	165	08.8
600	167	10.4
630	168	12.1
660	169	13.7
690	166	10.7
720	169	12.7
750	171	14.7

DELAS-MS-MT-WS Form 40

1 Sept 1979

Replaces DELAS-MS-MT-WS
 forms 46-A & 46-B and all
 other Pibal forms which are
 obsolete.

[illegible]

PILOT BALLOON MEASURED WIND DATA*

TABLE 5

RELEASED FROM NICK DATE 6 August 1979 TIME 0935 MDT
 RELEASE POINT COORDINATES (WSTM) X=470,734.56 Y=255,775.64 H=4126.57
 MISSILE TYPE 19702A GSRS MISSILE NO. 303 ROUND NO. B-28
 MISSILE LAUNCHED FROM LC-33 DATE 6 August 1979 TIME 0945 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIRING AZIMUTH

OR TRUE NORTH true north

Heights are METERS AGL METERS or FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED MPH
SFC	140	2.0
30	138	1.5
60	135	0.5
90	137	1.0
120	138	1.5
150	139	2.5
180	139	3.0
210	144	3.5
240	149	4.0
270	154	4.0
300	159	3.5
330	163	3.5
360	167	3.5

HEIGHT AGL	DIRECTION DEGREES	SPEED MPH
390	169	4.0
420	171	4.0
450	176	4.5
480	180	4.5
510	180	5.0
540	180	5.0
570	175	5.0
600	170	5.0
630	172	5.0
660	174	5.0
690	177	5.0
720	180	4.5
750	183	5.0

[illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM NICK DATE 6 August 1979 TIME 0945 MDT

RELEASE POINT COORDINATES (NAD83) X 470,734.56 Y 255,775.64 H 4126.57

MISSILE TYPE 19702A GSRS MISSILE NO. 303 ROUND NO. B-28

MISSILE LAUNCHED FROM LC-33 DATE 6 August 1979 TIME 0945 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIRING AZIMUTH

OR TRUE NORTH true north

HEIGHTS in METERS AGL METERS or FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED MPH
SFC	140	2.0
30	160	1.5
60	180	0.5
90	174	1.0
120	168	1.5
150	163	3.0
180	157	4.5
210	157	4.5
240	156	4.5
270	168	4.5
300	179	4.5
330	172	4.5
360	164	4.5

HEIGHT AGL	DIRECTION DEGREES	SPEED MPH
390	172	4.5
420	180	4.0
450	180	4.5
480	180	4.5
510	176	5.0
540	171	5.0
570	168	5.0
600	165	5.0
630	171	5.0
660	176	4.5
690	177	4.5
720	177	4.0
750	179	4.0

[illegible]

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LONG DEG

SIGNIFICANT LEVEL DATA
21800.0200
S M R

STATION ALTITUDE 3997.30 FEET MSL
6 AUG. 79 0630 HRS MST
ASCESSION NO. 203

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
684.9	3997.3	24.8	12.7	47.0
678.0	4222.0	22.6	7.6	38.0
650.0	5144.3	20.2	6.2	40.0
778.8	7611.2	17.2	5.5	46.0
750.2	8556.0	14.2	7.3	33.0
731.4	9353.7	13.2	2.4	48.0
700.0	10567.1	10.3	.3	50.0
667.4	11803.9	6.5	-0	53.0
655.4	12229.9	5.0	-3.5	52.0
641.0	12949.8	5.4	-14.5	46.0
632.0	13229.6	5.6	-13.3	44.0
614.8	14069.1	4.0	-10.0	35.0
597.8	14816.1	1.8	-4.1	55.0
580.0	15590.3	1.3	-7.2	53.0
500.0	19489.4	-6.8	-15.9	48.0
477.0	20695.2	-8.4	-28.0	21.0
454.4	21929.2	-10.4	-29.0	20.0
425.0	23611.6	-14.2	-21.4	54.0
400.0	25116.3	-17.4	-26.5	38.0
390.2	25726.1	-19.0	-31.2	33.0
329.4	30080.1	-29.4	-37.5	46.0
315.2	30538.0	-29.8	-46.4	17.0
313.4	30903.1	-30.1	-49.5	13.0
300.0	31977.7	-32.3		
250.0	36129.4	-43.0		
233.6	37438.2	-46.0		
225.4	38409.0	-47.1		
200.0	40902.0	-52.7		
177.6	43224.3	-57.3		
150.0	46931.4	-63.0		
129.2	49201.3	-65.8		
103.2	53243.1	-69.7		
100.0	55022.0	-71.5		
82.4	58803.1	-84.3		
77.0	59538.7	-85.8		
70.0	62128.9	-82.1		
64.2	65277.9	-61.3		
59.2	65503.8	-57.7		
50.0	69115.6	-56.3		
40.0	73309.1	-57.4		

STATION ALTITUDE 3997.30 FEET MSL
 6 AUG. 79 0630 HRS MST
 ASCENSION NO. 203

SIGNIFICANT LEVEL DATA
 2180000203
 S M R

GEODETIC COORDINATES
 32.46034 LAT DEG
 106.42307 LONG DEG

PRESSURE	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
30.0	79900.2	-51.7	
26.0	62993.1	-48.5	
20.0	88742.3	-45.7	
14.4	95985.3	-46.0	
13.0	98255.8	-42.8	

STATION ALTITUDE 3997.30 FEET MSL
6 AUG. 79 0630 HRS MST
ASCENSION NO. 263

UPPER AIR DATA
2180000200
S M R

GEODETIC COORDINATES
32.40034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION, DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
3997.3	884.9	24.8	47.0	1028.1	674.6	00	00	1.000292
4000.0	884.8	24.8	46.9	1028.1	674.5			1.000292
4500.0	869.5	21.9	38.6	1022.1	670.6			1.000272
5000.0	854.3	20.6	39.7	1008.9	669.1			1.000267
5500.0	839.3	19.8	40.9	994.0	668.2			1.000263
6000.0	824.6	19.2	42.1	978.5	667.5			1.000260
6500.0	810.1	18.6	43.3	963.3	666.8			1.000258
7000.0	795.9	17.9	44.5	948.3	666.1			1.000252
7500.0	781.9	17.3	45.7	933.6	665.4			1.000249
8000.0	768.0	16.1	52.3	920.7	664.1			1.000249
8500.0	754.4	14.6	60.5	908.5	662.6			1.000249
9000.0	741.0	13.7	55.7	895.8	661.3			1.000240
9500.0	727.7	12.9	48.2	883.0	660.1			1.000230
10000.0	714.6	11.7	49.1	870.9	658.8			1.000226
10500.0	701.7	10.5	49.9	859.0	657.2			1.000221
11000.0	688.9	9.0	54.3	847.6	655.8			1.000219
11500.0	676.4	7.6	59.4	836.5	653.9			1.000216
12000.0	664.0	6.2	58.9	825.6	652.1			1.000211
12500.0	651.8	5.5	42.2	813.0	651.1			1.000200
13000.0	639.8	5.4	25.7	799.0	650.7			1.000189
13500.0	628.0	5.2	26.5	784.8	650.5			1.000186
14000.0	616.4	4.1	34.0	773.0	649.3			1.000186
14500.0	604.9	2.7	52.3	762.0	647.9			1.000189
15000.0	593.7	1.7	62.1	750.5	646.7			1.000189
15500.0	582.6	1.4	54.4	737.6	645.2			1.000183
16000.0	571.6	.4	52.5	726.1	645.1			1.000179
16500.0	560.7	-.6	51.8	715.2	645.0			1.000175
17000.0	550.1	-1.6	51.2	704.4	642.6			1.000171
17500.0	539.6	-2.7	50.6	693.8	641.3			1.000168
18000.0	529.4	-3.7	49.9	683.3	640.0			1.000164
18500.0	519.3	-4.7	49.3	673.0	638.7			1.000161
19000.0	509.5	-5.8	48.6	662.9	637.5			1.000158
19500.0	499.8	-6.8	47.8	652.9	636.2			1.000155
20000.0	490.1	-7.5	36.6	642.1	635.3			1.000150
20500.0	480.7	-8.1	25.4	631.4	634.4			1.000145
21000.0	471.3	-8.9	20.8	621.0	633.5			1.000142
21500.0	462.1	-9.7	20.3	610.8	632.5			1.000139
22000.0	453.1	-10.0	21.4	600.8	631.5			1.000137
22500.0	444.2	-11.7	31.5	591.5	630.1			1.000136
23000.0	435.5	-12.8	41.6	582.2	628.8			1.000135

AX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 397.30 FEET ASL
 6 AUG. 79 0630 MRS MST
 ASLENSION NO. 203

UPPER AIR DATA
 2180000263
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEPT POINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION.
23500.0	426.9	-13.9	51.7	573.2	627.5	40.2	2.0	1.000134
24000.0	418.4	-15.0	49.9	564.2	626.2	45.5	2.3	1.000131
24500.0	410.1	-16.1	44.6	555.3	624.8	57.3	1.9	1.000128
25000.0	401.9	-17.2	39.2	546.6	623.5	69.9	2.2	1.000125
25500.0	393.8	-18.4	34.9	538.3	621.9	109.4	2.7	1.000123
26000.0	385.8	-19.7	33.6	529.9	620.4	110.4	3.3	1.000121
26500.0	377.8	-20.8	35.3	521.5	618.9	121.9	4.0	1.000119
27000.0	370.0	-22.0	36.8	513.1	617.5	125.9	4.1	1.000117
27500.0	362.4	-23.2	38.3	505.0	616.0	127.2	4.0	1.000115
28000.0	354.9	-24.4	39.8	497.0	614.5	144.2	3.2	1.000113
28500.0	347.6	-25.6	41.3	489.1	613.0	163.4	2.2	1.000111
29000.0	340.5	-26.8	42.8	481.3	611.6	238.5	.7	1.000109
29500.0	333.4	-28.0	44.3	473.7	610.1	343.4	2.1	1.000107
30000.0	326.6	-29.2	45.7	466.2	608.6	2.7	4.7	1.000105
30500.0	319.7	-29.8	19.4	457.6	607.8	14.0	6.0	1.000103
31000.0	313.0	-30.2	12.6**	448.7	607.3	23.4	7.1	1.000100
31500.0	306.3	-31.2	6.2**	441.1	605.9	23.5	7.3	1.000098
32000.0	299.8	-32.3		433.7	604.6	23.2	7.5	1.000097
32500.0	293.3	-33.6		426.6	602.9	28.7	6.4	1.000095
33000.0	286.9	-34.9		419.6	601.3	32.6	9.1	1.000093
33500.0	280.7	-36.2		412.7	599.7	34.8	9.0	1.000092
34000.0	274.6	-37.5		405.9	598.0	34.1	8.4	1.000090
34500.0	268.6	-38.8		399.2	596.4	29.2	6.9	1.000089
35000.0	262.7	-40.1		392.7	594.8	26.7	5.6	1.000087
35500.0	257.0	-41.4		386.3	593.1	31.9	4.9	1.000086
36000.0	251.4	-42.7		380.0	591.4	35.6	4.6	1.000085
36500.0	245.6	-43.8		373.5	589.9	40.0	4.7	1.000083
37000.0	240.3	-45.0		366.9	588.4	45.6	5.3	1.000082
37500.0	234.9	-46.1		360.4	587.1	50.6	6.3	1.000080
38000.0	229.6	-46.6		353.2	586.3	57.0	8.0	1.000079
38500.0	224.4	-47.3		346.2	585.5	61.6	10.0	1.000077
39000.0	219.3	-48.4		339.9	584.1	64.2	11.7	1.000076
39500.0	214.2	-49.5		333.7	582.6	66.2	13.3	1.000074
40000.0	209.3	-50.6		327.5	581.2	68.4	14.2	1.000073
40500.0	204.5	-51.7		321.7	579.8	70.4	15.0	1.000072
41000.0	199.8	-52.7		315.8	578.4	72.0	16.1	1.000070
41500.0	195.1	-53.6		309.9	577.0	73.3	17.3	1.000069
42000.0	190.6	-54.8		304.0	575.7	77.7	19.4	1.000068
42500.0	186.1	-55.8		298.3	574.3	81.6	21.8	1.000066
43000.0	181.7	-56.8		292.7	573.0	85.4	23.2	1.000065

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3497.30 FEET MSL
6 AUG. 79 0830 HRS MST
ASCENSION NO. 203

UPPER AIR DATA
2180000200
S M R

GEODETIC COORDINATES
32°46034 LAT DEG
105°42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	177.4	-57.7		286.9	571.8		24.5	1.000064
44000.0	173.1	-58.5		281.0	570.8	89.7	25.4	1.000063
44500.0	169.0	-59.3		275.2	569.8	89.8	26.3	1.000061
45000.0	164.9	-60.0		269.6	568.8	89.8	26.8	1.000060
45500.0	161.0	-60.8		264.0	567.7	89.1	27.3	1.000059
46000.0	157.1	-61.5		258.6	566.7	89.9	27.2	1.000058
46500.0	153.3	-62.3		253.3	565.7	91.7	26.8	1.000056
47000.0	149.6	-63.0		248.1	564.7	93.8	27.0	1.000055
47500.0	146.0	-63.5		242.8	564.1	93.9	27.9	1.000054
48000.0	142.4	-64.0		237.2	563.4	97.9	28.6	1.000053
48500.0	138.9	-64.4		231.9	562.8	99.7	29.1	1.000052
49000.0	135.5	-64.9		226.7	562.2	101.9	29.5	1.000050
49500.0	132.2	-65.4		221.6	561.6	104.5	29.9	1.000049
50000.0	128.9	-65.8		216.7	560.9	107.5	30.0	1.000048
50500.0	125.7	-66.4		211.9	560.1	111.8	29.1	1.000047
51000.0	122.6	-67.0		207.2	559.3	115.4	28.4	1.000046
51500.0	119.6	-67.6		202.6	558.5	118.9	26.8	1.000045
52000.0	116.6	-68.2		198.2	557.7	117.1	25.2	1.000044
52500.0	113.7	-68.8		193.8	557.0	114.8	24.0	1.000043
53000.0	110.9	-69.4		189.5	556.2	110.9	23.1	1.000042
53500.0	108.1	-69.9		185.3	555.4	108.4	22.0	1.000041
54000.0	105.4	-70.4		181.1	554.7	108.5	20.4	1.000040
54500.0	102.7	-71.0		176.9	554.0	108.5	19.0	1.000039
55000.0	100.1	-71.5		172.9	553.2	108.8	19.2	1.000037
55500.0	97.6	-70.6		167.9	554.4	105.1	19.5	1.000036
56000.0	95.2	-69.7		163.0	553.7	102.7	20.3	1.000035
56500.0	92.8	-68.7		158.2	557.0	100.2	21.4	1.000035
57000.0	90.5	-67.8		153.5	556.3	98.2	22.3	1.000034
57500.0	88.3	-66.9		149.0	559.8	98.7	22.7	1.000033
58000.0	86.1	-65.9		144.7	560.8	95.2	23.1	1.000032
58500.0	83.9	-65.0		140.4	562.1	92.4	23.0	1.000031
59000.0	81.8	-64.6		136.7	562.6	89.4	23.0	1.000030
59500.0	79.8	-63.7		134.0	561.2	88.0	23.5	1.000030
60000.0	77.9	-63.2		130.5	561.8	82.5	24.4	1.000029
60500.0	76.0	-64.5		126.8	562.8	80.1	25.5	1.000028
61000.0	74.1	-63.7		123.3	563.7	84.0	27.6	1.000027
61500.0	72.3	-63.0		119.9	564.7	87.4	30.2	1.000027
62000.0	70.6	-62.3		116.6	565.7	90.0	31.4	1.000026
62500.0	68.8	-61.9		113.5	566.2	93.9	31.8	1.000025
63000.0	67.2	-61.7		110.7	566.5	95.9	32.4	1.000025

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

UPPER AIR DATA
2180000203
S M R

STATION ALTITUDE 397.30 FEET MSL
6 AUG. 79 0830 HRS MST
ASCENSION NO. 203

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GV/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
03500.0	65.6	-61.5		107.9	568.8	95.9	32.4	1.000024
04000.0	64.0	-61.1		105.1	567.2	94.9	32.4	1.000023
04500.0	62.4	-60.1		102.1	566.7	95.0	32.2	1.000023
05000.0	61.0	-59.0		99.2	570.1	98.1	31.8	1.000022
05500.0	59.5	-57.9		95.3	571.5	100.0	31.5	1.000021
06000.0	58.1	-57.5		93.9	572.0	103.9	29.6	1.000021
06500.0	56.7	-57.3		91.0	572.3	107.8	27.6	1.000020
07000.0	55.4	-57.1		89.3	572.8	111.4	25.7	1.000020
07500.0	54.1	-56.9		87.1	572.8	112.0	24.0	1.000019
08000.0	52.8	-56.8		85.0	573.1	114.0	22.2	1.000019
08500.0	51.5	-56.6		82.9	573.4	114.0	21.1	1.000018
09000.0	50.3	-56.4		80.9	573.6	114.5	20.6	1.000018
09500.0	49.1	-56.4		79.0	573.6	114.4	20.0	1.000018
70000.0	48.0	-56.5		77.2	573.4	113.4	19.7	1.000017
70500.0	46.8	-56.6		75.4	573.3	112.3	19.4	1.000017
71000.0	45.7	-56.7		73.0	573.1	110.9	19.1	1.000016
71500.0	44.7	-56.9		71.9	573.0	108.7	19.0	1.000016
72000.0	43.6	-57.0		70.3	572.8	106.5	18.8	1.000016
72500.0	42.6	-57.1		68.7	572.8	101.0	19.0	1.000015
73000.0	41.6	-57.2		67.1	572.5	94.5	19.6	1.000015
73500.0	40.6	-57.3		65.5	572.3	97.9	20.5	1.000015
74000.0	39.6	-57.2		64.0	572.5	79.2	21.6	1.000014
74500.0	38.7	-56.8		62.3	573.1	71.0	23.5	1.000014
75000.0	37.8	-56.3		60.7	573.7	64.2	25.7	1.000014
75500.0	36.9	-55.8		59.2	574.3	65.3	28.8	1.000013
76000.0	36.1	-55.3		57.7	574.9	60.2	31.9	1.000013
76500.0	35.2	-54.9		56.2	575.6	67.1	34.8	1.000013
77000.0	34.4	-54.4		54.8	576.2	69.7	36.2	1.000012
77500.0	33.6	-53.9		53.4	576.8	72.0	37.6	1.000012
78000.0	32.8	-53.5		52.0	577.4	73.9	38.8	1.000012
78500.0	32.1	-53.0		50.7	578.0	74.4	38.4	1.000011
79000.0	31.3	-52.5		49.4	578.6	74.9	38.0	1.000011
79500.0	30.6	-52.1		48.2	579.2	75.0	37.7	1.000011
80000.0	29.9	-51.6		47.0	579.9	77.4	37.6	1.000010
80500.0	29.2	-51.1		45.8	580.6	79.2	37.6	1.000010
81000.0	28.5	-50.6		44.0	581.2	80.0	37.8	1.000010
81500.0	27.9	-50.0		43.5	581.9	81.0	38.6	1.000010
82000.0	27.2	-49.5		42.4	582.6	81.3	39.4	1.000009
82500.0	26.6	-49.0		41.3	583.2	82.0	40.3	1.000009
83000.0	26.0	-48.5		40.3	583.9	84.0	41.4	1.000009

STATION ALTITUDE 3497.00 FEET MSL
6 AUG. 79 0630 HRS MST
ASCENSION NO. 203

UPPER AIR DATA
2180000200
S M R

GEODETTIC COORDINATES
32.40034 LAT DEG
106.42307 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
03500.0	25.4	-48.3		39.4	584.2	05.0	42.6	1.000009
04000.0	24.8	-48.0		38.4	584.6	07.0	43.3	1.000009
04500.0	24.3	-47.8		37.5	584.9	09.0	43.0	1.000008
05000.0	23.7	-47.5		36.0	585.2	11.6	42.8	1.000008
05500.0	23.2	-47.3		35.8	585.5	12.7	40.9	1.000008
06000.0	22.7	-47.0		34.9	585.8	13.0	37.3	1.000008
06500.0	22.2	-46.8		34.1	586.1	13.3	33.8	1.000008
07000.0	21.7	-46.5		33.3	586.4	13.5	30.9	1.000007
07500.0	21.2	-46.3		32.5	586.8	13.7	28.3	1.000007
08000.0	20.7	-46.1		31.7	587.1	100.7	25.8	1.000007
08500.0	20.2	-45.8		31.0	587.4	101.4	25.1	1.000007
09000.0	19.8	-45.7		30.3	587.5	101.7	24.7	1.000007
09500.0	19.3	-45.7		29.6	587.5	101.9	24.2	1.000007
90000.0	18.9	-45.8		28.9	587.5	100.2	22.9	1.000006
90500.0	18.5	-45.8		28.3	587.5	98.5	21.6	1.000006
91000.0	18.1	-45.8		27.7	587.4	96.7	20.8	1.000006
91500.0	17.6	-45.8		27.0	587.4	96.4	21.5	1.000006
92000.0	17.3	-45.8		26.4	587.4	96.2	22.1	1.000006
92500.0	16.9	-45.9		25.8	587.3	96.0	23.4	1.000006
93000.0	16.5	-45.9		25.3	587.3	95.7	25.4	1.000006
93500.0	16.1	-45.9		24.7	587.3	95.5	27.5	1.000005
94000.0	15.8	-45.9		24.2	587.3	95.0	31.0	1.000005
94500.0	15.4	-45.9		23.6	587.2	94.3	35.6	1.000005
95000.0	15.1	-46.0		23.1	587.2	93.9	40.2	1.000005
95500.0	14.7	-46.0		22.6	587.2	92.6	43.7	1.000005
96000.0	14.4	-46.0		22.1	587.2	91.2	46.8	1.000005
96500.0	14.1	-45.3		21.5	586.1	89.9	49.9	1.000005
97000.0	13.8	-44.6		21.0	589.0			1.000005
97500.0	13.5	-43.9		20.4	589.9			1.000005
98000.0	13.2	-43.2		19.9	590.8			1.000004

STATION ALTITUDE 3497.30 FEET MSL
 6 AUG. 79 0830 HRS MST
 ASCENSION NO. 263

MRN SIGNIFICANT LEVEL DATA
 2180000203
 S M R

GEODETIC COORDINATES
 32.42034 LAT DEG
 106.42307 LONG DEG

GEOPOTENTIAL ALTITUDE DECIMETERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA		E-W MPS	U-W PT DE- DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS				AIR DEG C		
2979.	9999.**	9999.**	-9999.**		-9999.**	99	-42.8		1.300+1
2911.	91.	24.	1.		-24.	99	-46.0		1.440+1
2892.	102.	13.	3.		-13.	99	-45.7		2.000+1
2518.	84.	21.	-2.		-21.	99	-48.5		2.600+1
2425.	77.	19.	-4.		-19.	99	-51.7		3.000+1
2441.	83.	11.	-1.		-11.	99	-57.4		4.000+1
2099.	114.	10.	4.		-10.	99	-56.3		5.000+1
1992.	101.	16.	3.		-16.	99	-57.7		5.920+1
1942.	95.	17.	1.		-17.	99	-61.3		6.420+1
1688.	92.	16.	0.		-16.	99	-62.1		7.000+1
1809.	86.	12.	-1.		-12.	99	-65.8		7.960+1
1788.	90.	12.	0.		-12.	99	-64.3		8.240+1
1672.	107.	10.	3.		-9.	99	-71.5		1.000+2

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3997.30 FEET MSL
6 AUG. 79 0030 HRS MST
ASCENSION NO. 263

MANDATORY LEVELS
21800.0263
S M R

GEODETTIC COORDINATES
32.44034 LAT DEG
106.42307 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEW POINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5141.	20.2	6.2	40.	9999.0	9999.0XX
800.0	6851.	18.1	5.7	44.	9999.0	9999.0XX
750.0	8656.	14.2	7.2	63.	194.8	5.0
700.0	10557.	10.3	.3	50.	118.6	4.2
650.0	12562.	5.5	-7.1	40.	105.9	7.8
600.0	14701.	2.1	-4.6	61.	150.0	13.4
550.0	16994.	-1.6	-10.4	51.	141.5	13.5
500.0	19462.	-6.8	-15.9	48.	162.9	5.3
450.0	22141.	-11.0	-27.1	25.	100.1	4.7
400.0	25074.	-17.4	-28.3	38.	93.8	2.3
350.0	28306.	-25.2	-34.0	41.	159.0	4.8
300.0	31923.	-32.3			22.8	7.5
250.0	36049.	-43.0			37.4	4.6
200.0	40882.	-52.7			71.9	16.0
175.0	43674.	-58.2			89.4	25.1
150.0	46823.	-63.0			93.5	20.9
125.0	50475.	-66.6			112.7	29.0
100.0	54850.	-71.5			106.8	19.2
80.0	59260.	-65.6			86.6	23.4
70.0	61944.	-62.1			91.5	31.5
60.0	65088.	-58.3			99.0	31.6
50.0	68874.	-56.3			114.5	20.4
40.0	73513.	-57.4			83.4	21.2
30.0	79556.	-51.7			76.9	37.7
25.0	83471.	-48.1			60.8	43.3
20.0	88323.	-45.7			101.5	24.9
15.0	94607.	-46.0			93.8	40.5

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

AX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3997.30 FEET MSL 6 AUG. 79 ASCENSION NO. 263			MRN MANDATORY LEVELS 2180060203 S M R			GEODETIC COORDINATES 32.48034 LAT DEG 106.42307 LOIN DEG		
GEOPOTENTIAL ALTITUDE DECA METERS	DIRECTION JEG (TN)	SPEED MPS	WIND DATA N-S MPS	E-W MPS	DEW PT DEP JEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS	
2884.	94.	21.	1.	-21.	99	-46.0	1.500*1	
2892.	102.	13.	3.	-13.	99	-45.7	2.000*1	
2944.	87.	22.	-1.	-13.	99	-48.1	2.500*1	
2425.	77.	19.	-4.	-19.	99	-51.7	3.000*1	
2441.	83.	11.	-1.	-11.	99	-57.4	4.000*1	
2099.	114.	11.	4.	-10.	99	-56.3	5.000*1	
1984.	100.	16.	3.	-10.	99	-58.3	6.000*1	
1888.	91.	16.	0.	-10.	99	-62.1	7.000*1	
1806.	87.	12.	-1.	-12.	99	-65.6	8.000*1	
1872.	107.	10.	3.	-7.	99	-71.5	1.000*2	
1538.	113.	15.	6.	-14.	99	-66.6	1.250*2	
1427.	93.	14.	1.	-14.	99	-63.0	1.500*2	
1331.	89.	13.	-0.	-13.	99	-58.2	1.750*2	
1246.	72.	6.	-3.	-8.	99	-52.7	2.000*2	
1099.	37.	2.	-2.	-1.	99	-43.0	2.500*2	
973.	23.	4.	-4.	-1.	99	-32.3	3.000*2	
863.	159.	1.	1.	-1.	09	-25.2	3.500*2	
764.	94.	1.	0.	-1.	11	-17.4	4.000*2	
675.	100.	2.	0.	-2.	16	-11.0	4.500*2	
593.	163.	3.	3.	-1.	09	-6.8	5.000*2	
518.	142.	7.	5.	-4.	09	-1.6	5.500*2	
448.	150.	7.	6.	-3.	07	2.1	6.000*2	
383.	106.	4.	1.	-4.	13	5.5	6.500*2	
322.	119.	2.	1.	-2.	10	10.3	7.000*2	
264.	195.	3.	3.	1.	07	14.2	7.500*2	
209.	9999.**	9999.**	-9999.**	-9999.**	12	18.1	8.000*2	
157.	9999.**	9999.**	-9999.**	-9999.**	14	20.2	8.500*2	

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.